

### Amendments to the Claims

This listing of claims will replace all prior versions, and listings of claims in the application:

1. (Original) A monoclonal antibody that specifically binds to a human VEGF with dissociation constant  $K_d$  equal to or lower than 0.2 nM.
2. (Original) The monoclonal antibody of claim 1, wherein the dissociation constant  $K_d$  is equal to or lower than 0.1 nM.
3. (Original) The monoclonal antibody of claim 1, wherein the dissociation constant  $K_d$  is equal to or lower than 0.08 nM.
4. (Original) The monoclonal antibody of claim 1, wherein the dissociation constant  $K_d$  is equal to or lower than 0.05 nM.
5. (Original) The monoclonal antibody of claim 1, wherein the dissociation constant  $K_d$  is equal to or lower than 0.01 nM.
6. (Original) The monoclonal antibody of claim 1, wherein the dissociation constant  $K_d$  is equal to or lower than 0.005 nM.
7. (Original) The monoclonal antibody of claim 1, wherein the antibody is in a form of scFv.
8. (Original) The monoclonal antibody of claim 1, wherein the antibody is in a form of Fab.
9. (Original) The monoclonal antibody of claim 1, wherein the antibody is in a form of fully assembled antibody.
10. (Original) The monoclonal antibody of claim 1, wherein the antibody is in a form of scFv and the dissociation constant  $K_d$  is measured at about 4°C, 25°C, 37°C or 42°C.

11. (Original) The monoclonal antibody of claim 1, wherein the antibody is in a form of Fab and the dissociation constant  $K_d$  is measured at about 4°C, 25°C, 37°C or 42°C.

12. (Original) The monoclonal antibody of claim 1, wherein the antibody is in a form of Fab and the dissociation constant  $K_d$  is measured at about 37°C.

13. [[14.]] (Withdrawn-currently amended) A monoclonal antibody that specifically binds to a human VEGF and has  $V_L$  comprising the amino acid sequence of

$X_1X_2X_3X_4TQX_5PSX_6X_7SX_8X_9X_{10}GX_{11}X_{12}X_{13}X_{14}IX_{15}CX_{16}X_{17}SX_{18}X_{19}IX_{20}X_{21}X_{22}X_{23}X_{24}WYQQX_{25}PGX_{26}APX_{27}X_{28}LX_{29}YX_{30}X_{31}X_{32}X_{33}LX_{34}X_{35}GVX_{36}X_{37}RFSGX_{38}X_{39}SGTDFX_{40}LTIX_{41}X_{42}LQX_{43}X_{44}DX_{45}AX_{46}YYCQQX_{47}X_{48}X_{49}X_{50}PX_{51}TFGX_{52}GTKX_{53}X_{54}IK$ , wherein the underlined regions are designated as  $V_L/CDR1$ ,  $V_L/CDR2$ , and  $V_L/CDR3$ , respectively, whereas the rest of the region is designated as framework, and wherein  $X_1$  is D, E or A;  $X_2$  is I, or T;  $X_3$  is V, E, K, R, Q, or T;  $X_4$  is M, or L;  $X_5$  is S, or T;  $X_6$  is S, or T;  $X_7$  is L, or V;  $X_8$  is A, or V;  $X_9$  is S, or T;  $X_{10}$  is P, V, L, A, or I;  $X_{11}$  is E, or D;  $X_{12}$  is R, or T;  $X_{13}$  is A, or V;  $X_{14}$  is T, or A;  $X_{15}$  is T, S, or A;  $X_{16}$  is S, R, N, K, H, or Q;  $X_{17}$  is A, or S;  $X_{18}$  is Q, or R;  $X_{19}$  is S, D, A, or P;  $X_{20}$  is S, G, R, T, or Y;  $X_{21}$  is T, N, S, D, or K;  $X_{22}$  is Y, or D;  $X_{23}$  is L, or I;  $X_{24}$  is A, N, or T;  $X_{25}$  is K, or I;  $X_{26}$  is Q, K, T, or I;  $X_{27}$  is R, K, Q, N, H, S, or E;  $X_{28}$  is V, or L;  $X_{29}$  is I, or V;  $X_{30}$  is F, A, G, D, or S;  $X_{31}$  is A, or T;  $X_{32}$  is S, or T;  $X_{33}$  is N, S, R, or T;  $X_{34}$  is A, H, or Q;  $X_{35}$  is S, or G;  $X_{36}$  is P, T;  $X_{37}$  is S, N, D, G, or Y;  $X_{38}$  is S, or T;  $X_{39}$  is G, or R;  $X_{40}$  is T, or A;  $X_{41}$  is S, or R;  $X_{42}$  is S, or R;  $X_{43}$  is P, or A;  $X_{44}$  is E, or D;  $X_{45}$  is F, V, or S;  $X_{46}$  is V, T, I, A, or S;  $X_{47}$  is Y, or S;  $X_{48}$  is S, Y, or N;  $X_{49}$  is S, or T;  $X_{50}$  is T, V, A, P, K, G, S, or I;  $X_{51}$  is W, or Y;  $X_{52}$  is Q, or G;  $X_{53}$  is V, or L; and  $X_{54}$  is E, D, or A.

14. [[15.]] (Withdrawn-currently amended) A monoclonal antibody that specifically binds to a human VEGF and has  $V_L$  comprising the amino acid sequence of

$X_1X_2X_3LTQPPSX_4SX_5TPGQX_6VTISCSGX_7X_8SNX_9GX_{10}NX_{11}VX_{12}WYQQX_{13}PGX_{14}APKX_{15}LX_{16}YX_{17}NX_{18}X_{19}RPSGVPX_{20}RX_{21}SGSX_{22}SX_{23}TSASLAISGLX_{24}SEDEADYYCX_{25}X_{26}WDDSLX_{27}GYVFGX_{28}GTX_{29}LTVL$ , wherein the underlined regions are designated as  $V_L/CDR1$ ,  $V_L/CDR2$ , and  $V_L/CDR3$ , respectively, whereas the rest of the region is designated as framework, and wherein  $X_1$  is Q, L, or N;  $X_2$  is P, A, F, or S;  $X_3$  is V, or M;  $X_4$  is A, or T;  $X_5$  is G, or A;  $X_6$  is R, or S;  $X_7$  is S,

or T; X<sub>8</sub> is S, T Y, or N; X<sub>9</sub> is I, or V; X<sub>10</sub> is S, or R; X<sub>11</sub> is S, P, N, A, or T; X<sub>12</sub> is N, T, or Y; X<sub>13</sub> is L, or F; X<sub>14</sub> is T, or A; X<sub>15</sub> is V, L, or F; X<sub>16</sub> is M, or I; X<sub>17</sub> is G, T, or S; X<sub>18</sub> is N, or D; X<sub>19</sub> is Q, or E; X<sub>20</sub> is D, or E; X<sub>21</sub> is F, or L; X<sub>22</sub> is K, or R; X<sub>23</sub> is G, or A; X<sub>24</sub> is Q, L, or R; X<sub>25</sub> is A, or G; X<sub>26</sub> is A, S, or T; X<sub>27</sub> is N, S, or T; X<sub>28</sub> is T, or A; and X<sub>29</sub> is K, or Q.

15. [[16.]] (Withdrawn-currently amended) A monoclonal antibody that specifically binds to a human VEGF and has V<sub>L</sub> comprising the amino acid sequence of  
QSALTQPPSVSGAPGQRVTISCTGRSSNIGAGHDVHWYQQLPGTAPKLLIYANDQRPSGVP  
DRFSDSKSGTSASLGISGLRSEDEADYFCATWDDSLHGYVFGTGTKVTVL (SEQ ID No: 54).

16. [[17.]] (Withdrawn-currently amended) A monoclonal antibody is provided that specifically binds to a human VEGF and has V<sub>H</sub> comprising the amino acid sequence of  
X<sub>1</sub>X<sub>2</sub>QLVX<sub>3</sub>SGGGX<sub>4</sub>VQPGGX<sub>5</sub>LRLX<sub>6</sub>CAX<sub>7</sub>SGX<sub>8</sub>X<sub>9</sub>X<sub>10</sub>X<sub>11</sub>X<sub>12</sub>X<sub>13</sub>GX<sub>14</sub>NWX<sub>15</sub>RQAPGKGX<sub>16</sub>E  
WVGWX<sub>17</sub>NTX<sub>18</sub>X<sub>19</sub>GX<sub>20</sub>X<sub>21</sub>TYX<sub>22</sub>X<sub>23</sub>X<sub>24</sub>FX<sub>25</sub>RRX<sub>26</sub>TX<sub>27</sub>SX<sub>28</sub>X<sub>29</sub>X<sub>30</sub>SKX<sub>31</sub>X<sub>32</sub>X<sub>33</sub>YLQX<sub>34</sub>NSL  
RAEDTAVYYCAX<sub>35</sub>YPX<sub>36</sub>YYGX<sub>37</sub>SHWYFDVWX<sub>38</sub>QGTLVTVSS, wherein the underlined regions are designated as CDR1, CDR2, and CDR3, respectively, whereas the rest of the region is designated as framework according to Kabat nomenclature, and wherein X<sub>1</sub> is E, or Q; X<sub>2</sub> is V, or G; X<sub>3</sub> is Q, or E; X<sub>4</sub> is V, or L; X<sub>5</sub> is S, or T; X<sub>6</sub> is S T, or R; X<sub>7</sub> is A, or V; X<sub>8</sub> is Y, or F; X<sub>9</sub> is T, D, N, S, or A; X<sub>10</sub> is F, or L; X<sub>11</sub> is T, D, Y, A, S, or N; X<sub>12</sub> is N, H, or S; X<sub>13</sub> is Y, or F; X<sub>14</sub> is M, L, I, or V; X<sub>15</sub> is I, V, or L; X<sub>16</sub> is L, or P; X<sub>17</sub> is I, or V; X<sub>18</sub> is Y, or N; X<sub>19</sub> is T, or N; X<sub>20</sub> is E, or A; X<sub>21</sub> is P, T, or S; X<sub>22</sub> is A, or V; X<sub>23</sub> is A, H, Q, P, D, or E; X<sub>24</sub> is D, or E; X<sub>25</sub> is K, or T; X<sub>26</sub> is V, F, or L; X<sub>27</sub> is F, or I; X<sub>28</sub> is L, or R; X<sub>29</sub> is D, or N; X<sub>30</sub> is T, or N; X<sub>31</sub> is S, or N; X<sub>32</sub> is T, Q, P, or K; X<sub>33</sub> is A, V, or P; X<sub>34</sub> is L, or M; X<sub>35</sub> is K, or R; X<sub>36</sub> is H, or Y; X<sub>37</sub> is S, R, or T; and X<sub>38</sub> is G, or A.

17. [[18.]] (Withdrawn-currently amended) A monoclonal antibody is provided that specifically binds to a human VEGF and has V<sub>L</sub> comprising the amino acid sequence selected from the group consisting of SEQ ID NOs:2-54, more preferably comprising the amino acid sequence selected from the group consisting of SEQ ID NO:14, SEQ ID NO:26, SEQ ID NO:28, SEQ ID NO:36, SEQ ID NO:37, SEQ ID NO:44, SEQ ID NO:47, and SEQ ID NO:54.

18. [[19.]] (Withdrawn-currently amended) A monoclonal antibody that specifically binds to a human VEGF and has  $V_H$  comprising the amino acid sequence selected from the group consisting of SEQ ID NOs:57-110 and SEQ ID NOs:285-310, and preferably comprising the amino acid sequence selected from the group consisting of SEQ ID NOs:61-64, SEQ ID NO:67, 68, 70, 75, 83, 88, 89, 90, 91, 92, 93, 94, and 96-110.

19. [[20.]] (Withdrawn-currently amended) A monoclonal antibody is provided that specifically binds to a human VEGF and has CDR2 in the  $V_L$  region ( $V_L$ /CDR2) comprising the amino acid sequence selected from the group consisting of SEQ ID NOs:195-209.

20. [[21.]] (Withdrawn-currently amended) A monoclonal antibody that specifically binds to a human VEGF and has CDR3 in the  $V_L$  region ( $V_L$ /CDR3) comprising the amino acid sequence selected from the group consisting of SEQ ID NOs:210-228.

21. [[22.]] (Withdrawn-currently amended) A monoclonal antibody that specifically binds to a human VEGF and has a framework region (FR) CDR3 in the  $V_L$  region ( $V_L$ /FR) comprising the amino acid sequence selected from the group consisting of: SEQ ID NO:229-269, and preferably comprising the amino acid sequence selected from the group consisting of SEQ ID NO:232, 235, 237, 251, 255, 263, and 265.

22. [[23.]] (Withdrawn-currently amended) A monoclonal antibody that specifically binds to a human VEGF and has CDR1 in the  $V_H$  region ( $V_H$ /CDR1) comprising the amino acid sequence of  $GX_1X_2X_3X_4X_5X_6GX_7N$ , wherein  $X_1$  is Y, or F;  $X_2$  is D, N, T, S, or A;  $X_3$  is F, or L;  $X_4$  is T, D, S, Y, A, or N;  $X_5$  is H, N, or S;  $X_6$  is Y, or F;  $X_7$  is M, L, I, or V.

23. [[24.]] (Withdrawn-currently amended) A monoclonal antibody that specifically binds to a human VEGF and has CDR2 in the  $V_H$  region ( $V_H$ /CDR2) comprising the amino acid sequence of  $WX_1NTX_2X_3GEX_4TYX_5X_6X_7FX_8R$ , wherein  $X_1$  is I, or V;  $X_2$  is Y, or N;  $X_3$  is T, or N;  $X_4$  is P, T, or S;  $X_5$  is A, or V;  $X_6$  is A, Q, P, H, D, or E;  $X_7$  is D, or E; and  $X_8$  is K, or T.

24. [[25.]] (Withdrawn-currently amended) A monoclonal antibody that specifically binds to a human VEGF and has CDR2 in the V<sub>H</sub> region (V<sub>H</sub>/CDR2) comprising the amino acid sequence selected from the group consisting of: SEQ ID NOs:136-156.

25. [[26.]] (Withdrawn-currently amended) A monoclonal antibody that specifically binds to a human VEGF and has CDR3 in the V<sub>H</sub> region (V<sub>H</sub>/CDR3) comprising the amino acid sequence of KYPX<sub>1</sub>YYGX<sub>2</sub>SHWYFDV, wherein X<sub>1</sub> is Y, or H, and X<sub>2</sub> is R.

26. [[27.]] (Withdrawn-currently amended) A monoclonal antibody that specifically binds to a human VEGF and has CDR3 in the V<sub>H</sub> region (V<sub>H</sub>/CDR3) comprising the amino acid sequence selected from the group consisting of SEQ ID NOs:311-337.

27. [[28.]] (Withdrawn-currently amended) A monoclonal antibody that specifically binds to a human VEGF and has FR in the V<sub>H</sub> region (V<sub>H</sub>/FR) comprising the amino acid sequence of X<sub>1</sub>VQLVX<sub>2</sub>SGGGX<sub>3</sub>VQPGGX<sub>4</sub>LRLX<sub>5</sub>CAX<sub>6</sub>S/CDR1/WX<sub>7</sub>RQAPGKGLEWVG/CDR2/RX<sub>8</sub>TX<sub>9</sub>SX<sub>10</sub>DX<sub>11</sub>SKX<sub>12</sub>X<sub>13</sub>X<sub>14</sub>YLQX<sub>15</sub>NSLRAEDTAVYYCA/CDR3/WX<sub>16</sub>QGTLVTVSS, wherein X<sub>1</sub> is E, or Q; X<sub>2</sub> is Q, or E; X<sub>3</sub> is V, or L; X<sub>4</sub> is S, or T; X<sub>5</sub> is S, T, or R; X<sub>6</sub> is A, or V; X<sub>7</sub> is I, or V; X<sub>8</sub> is F, or V; X<sub>9</sub> is F, or I; X<sub>10</sub> is L, or R; X<sub>11</sub> is T, or N; X<sub>12</sub> is S, or N; X<sub>13</sub> is T, Q, or K; X<sub>14</sub> is A, or V; X<sub>15</sub> is M, or L; and X<sub>16</sub> is G, or A.

28. [[29.]] (Currently amended) A monoclonal antibody that specifically binds to a human VEGF and has a V<sub>L</sub> and V<sub>H</sub> pair selected from the group consisting of: ~~SEQ ID NO:1 and 70; SEQ ID NO:1 and 67; SEQ ID NO:1 and 75; SEQ ID NO:1 and 83; SEQ ID NO:14 and 55; SEQ ID NO:1 and 101; SEQ ID NO:1 and 100; SEQ ID NO:14 and 102; SEQ ID NO:1 and 103; SEQ ID NO:1 and 104; SEQ ID NO:1 and 105; SEQ ID NO:36 and 100; SEQ ID NO:26 and 100; SEQ ID NO:28 and 100; SEQ ID NO:37 and 100; SEQ ID NO:44 and 100; SEQ ID NO:54 and 100; and SEQ ID NO:47 and 100,~~ preferably selected from the group consisting of SEQ ID NO:28 and 61; SEQ ID NO:28 and 62; SEQ ID NO:28 and 63; SEQ ID NO:28 and 64; SEQ ID NO:28 and 68; SEQ ID NO:28 and 85; SEQ ID NO:28 and 86; SEQ ID NO:28 and 87; SEQ ID NO:28 and 88; SEQ ID NO:28 and 89; SEQ ID NO:28 and 90; SEQ ID NO:28 and 91; ~~SEQ ID NO:28 and 92; SEQ ID NO:28 and 93; SEQ ID NO:28 and 94; SEQ ID NO:28 and 95; SEQ ID NO:28 and 96; SEQ ID~~

~~NO:28 and 97; SEQ ID NO:28 and 98; SEQ ID NO:28 and 99; SEQ ID NO:28 and 106; SEQ ID NO:28 and 107; SEQ ID NO:28 and 108; and SEQ ID NO:28 and 109; and SEQ ID NO:28 and 110.~~

29. ~~[[30.]]~~ (Withdrawn-currently amended) The monoclonal antibody of any of claims 14-29, wherein the antibody has dissociation constant  $K_d$  equal to or lower than 10 nM.

30. ~~[[31.]]~~ (Withdrawn-currently amended) The monoclonal antibody of any of claims 14-29, wherein the antibody has dissociation constant  $K_d$  equal to or lower than 1 nM.

31. ~~[[32.]]~~ (Withdrawn-currently amended) The monoclonal antibody of any of claims 14-29, wherein the antibody has dissociation constant  $K_d$  equal to or lower than 0.1 nM.

32. ~~[[33.]]~~ (Withdrawn-currently amended) The monoclonal antibody of any of claims 14-29, wherein the antibody has dissociation constant  $K_d$  equal to or lower than 0.01 nM.

33. (New) A monoclonal antibody that specifically binds to human VEGF and has a  $V_L$  and  $V_H$  pair selected from the group consisting of: SEQ ID NO:26 and 88; SEQ ID NO:26 and 90; SEQ ID NO:26 and 91; SEQ ID NO:26 and 106; SEQ ID NO:26 and 107; SEQ ID NO:26 and 108; SEQ ID NO:26 and 109; SEQ ID NO:28 and 88; SEQ ID NO:28 and 90; SEQ ID NO:28 and 91; SEQ ID NO:28 and 106; SEQ ID NO:28 and 107; SEQ ID NO:28 and 108; SEQ ID NO:28 and 109; SEQ ID NO:36 and 88; SEQ ID NO:36 and 90; SEQ ID NO:36 and 91; SEQ ID NO:36 and 106; SEQ ID NO:36 and 107; SEQ ID NO:36 and 108; and SEQ ID NO:36 and 109.

34. (New) A monoclonal antibody that specifically binds to human VEGF and has a  $V_L$  and  $V_H$  pair selected from the group consisting of: SEQ ID NO:26 and 106; SEQ ID NO:28 and 106; and SEQ ID NO:36 and 106.

35. (New) A monoclonal antibody that specifically binds to human VEGF and has a  $V_L$  and  $V_H$  pair selected consisting of SEQ ID NO: 28 and 106.